



DEVELOPING THE RIGHT SKILLS AND TOOLS— AS A TEAM!

By Major General Randal R. Castro and Lieutenant Colonel Paul L. Grosskruger

Throughout its history, the Engineer Regiment has distinguished itself, time and time again, by its support to our Nation. And at this point in our history, we stand together at a crossroads of relevance. We must select the right fork in the road—that which takes us toward developing relevant skills and tools for our units and staffs. We must quickly address capability gaps in urban and complex terrain. We must ask ourselves, “Do we have the tools we need?” “Are we skilled to accomplish the tasks required?” “Do we have the right organizations?” It is up to us to seize the initiative and make this happen!

Challenges and Opportunities

Today’s landscape is changing by the minute. It’s filled with quickly evolving technologies, instantaneous global communication, and increasingly complex urban population centers and terrain—together with highly adaptive, deadly, motivated, and elusive enemies who play by their own rules. In response, the Army has begun to adapt to meet the challenges with more responsive, specialized, modularized, effects-based organizations or modules. These capabilities-based modules—centered upon the brigade combat team, the units of employment-tactical (UEX), and the units of employment-operational (UEY)—are right for our Army.

The Regiment you see as a result of modularity is not the Regiment of tomorrow. Several Department of the Army-level studies have shown that future engineer requirements have actually increased. These requirements, coupled with the number of engineer headquarters based on a “bottoms-up” process, will ultimately require more engineer structure than we had prior to modularity. At the brigade level is where we will mix and match modules. From the brigade level on down, we will be better able to provide a full range of support to our Army and to our Regiment. The message is loud and clear: “We’re coming back!”

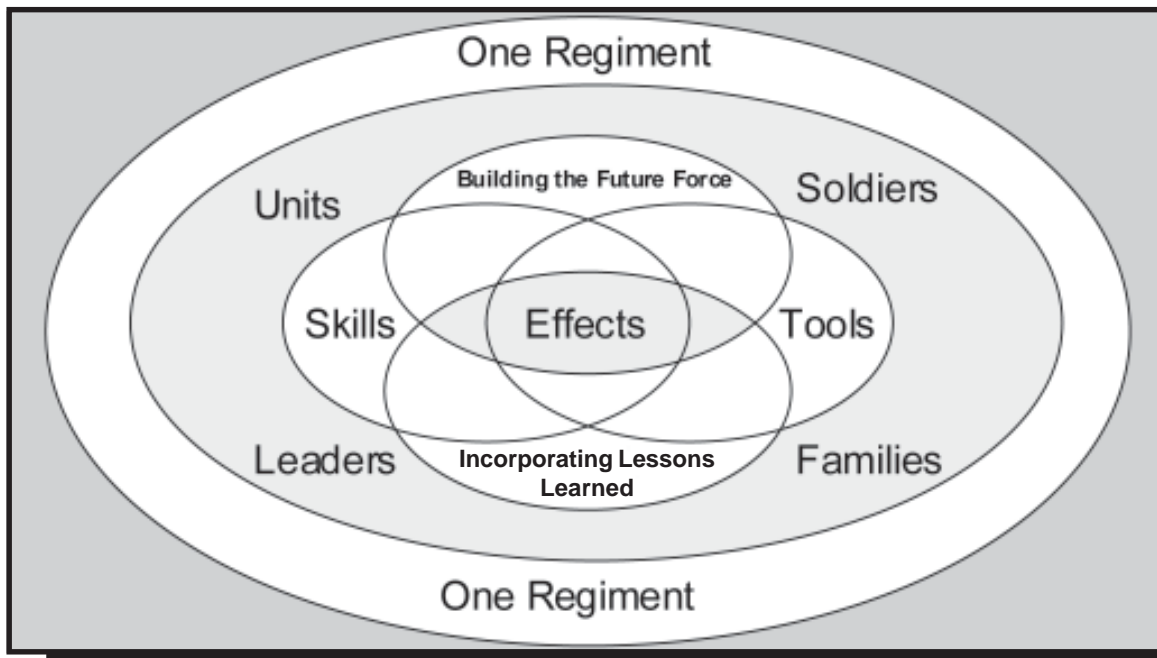
A New Approach

The doctrine, organization, training, materiel, leader development, personnel, and facilities (DOTMLPF) assessment approach has served the Army and the Engineer Regiment well and is the foundation for the future. But we have to be much better at getting the skills and tools to our engineer Soldiers, staffs, and units to keep them indispensable to the land component maneuver commander. Our focus needs to be on continual “gap analysis” of engineer support to maneuver in urban and complex terrain. This approach also continuously incorporates today’s lessons learned and provides refinement in placing the right mix of skills and tools into our Future Engineer Force. This concept focuses our limited resources, maximizes our use of collaboration across the Regiment, and sets forth short- and long-term goals.

Skills

We must strive to ensure that our skills are relevant today and tomorrow and that they are indispensable to the land component maneuver commander. We have focused our efforts for years on engineer skills supporting maneuver in open and rolling terrain. Operations in urban and complex terrain—today and in the future—demonstrate the need for getting better skills for our Soldiers and staffs to enable mobility in concert with maneuver in such terrain. Soldiers must first be warriors, fully versed in battlefield fundamentals of “shoot, move, and communicate” and in expertly executing their military occupational specialties—from the moment they leave one-station unit training (OSUT) and advanced individual training (AIT). In addition to our mobility/survivability skills, sappers must be skilled in pattern analysis, change detection, search, reconnaissance, and terrain visualization. We all must be trained to expertly predict, prevent, detect, and avoid today’s improvised explosive devices (IEDs), bridge the gaps, ensure security of lines of communication, and many other engineer-unique missions. Specialized training such as the Sapper

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE MAR 2005		2. REPORT TYPE		3. DATES COVERED 00-00-2005 to 00-00-2005	
4. TITLE AND SUBTITLE Developing the Right Skills and Tools - As a Team				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Engineer School,14010 MSCoE Loop BLDG 3201, Suite 2661,Fort Leonard Wood,MO,65473-8702				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 3	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			



To obtain the desired effects, we must possess the right skills and tools and incorporate the lessons learned of today while building the Future Force. All this must be done while keeping mindful of the criticality of our people—Soldiers, leaders, families, and units—all working as one team and one Regiment.

Leader Course, Urban Mobility Breaching Course, search courses, and specialty courses must be standards for our Soldiers and leaders. Finally, we must tighten the linkage between our Soldiers, leaders, and staffs in combat and our institutional schools and laboratories. Skills must also be linked with building future modular units. This must be a continuous approach where we constantly assess our current skills and update the training of our Soldiers, leaders, and staffs.

Tools

Our tools are—and always will be—our credentials and “stock in trade.” They are inseparable from our skills and the lessons learned from today’s operations and lead to the right effects for our Army. As with our skills, our tools have been designed to dominate open and rolling terrain. But today’s operations require our engineer tools to address the immense challenges of urban and complex terrain in addition to open and rolling terrain.

We are finding major equipment capability gaps for our Soldiers and units in providing assured mobility in urban and complex terrain. Some tools are out there—such as urban breachers, mine detectors, specialized explosives, mine and search dogs, RG-31 and Buffalo armored vehicles, and reconnaissance tools. In addition, the Digital Terrain Support System and TeleEngineering Kits are making great impacts. All engineers must seek out and obtain these emerging tools. Much more work is needed in getting the right tools to our units and engineer staffs and making them more indispensable. Efforts in networked air and ground technologies to detect and neutralize explosives and other hazards are needed. Also, we need to pursue modernizing equipment for our sapper modules and for construction equipment in building and

maintaining lines of communication (ports, airfields, and roads), logistic support areas, and lodgment areas.

Lessons Learned

We cannot develop relevant skills and tools for our Soldiers, leaders, and units without incorporating observations, needs, and lessons learned. Our manning and equipping strategies must be closely linked with the Total Engineer Force, continuously gaining feedback and sharing developments. It is critical for our units to forward lessons learned and recommended solutions to our institutions, because they provide an incredible windfall of information to develop solutions for better skills and tools. This not only yields better Soldiers and units but also provides invaluable feedback to our concepts teams as we craft the Future Engineer Force.

Future Engineer Force

We continue the massive efforts associated with transforming the Engineer Regiment into a more responsive and effective organization for our Army. The future engineer structure will provide more leadership challenges, opportunities, and professional development for our Soldiers and leaders than we have had in the past. Our Future Engineer Force is a total, top-to-bottom design of the Regiment that—

- Is capabilities- and module-based.
- Brings to bear the entire Regiment.
- Provides professional growth.
- Mixes and matches the right effects for the operation from across the Regiment.

This is an exciting period in our history. We are about to bring to life the concept of the Future Engineer Force by activating and converting units this summer. The complete transformation of our Regiment will take a little more than five years. Our organizations will be more versatile and responsive—capable of providing all facets of engineer support. Our command and control capabilities will be greatly expanded and—perhaps the best news for our Regiment—we are fixing the logistical support to our organizations. Our battalions in the Future Engineer Force will have a forward support company in addition to a headquarters and headquarters company. We have worked very closely with the US Army Combined Arms Support Command (CASCOM) in developing a very capable support structure that will serve us well into the future. Bottom line: “We’re coming back” . . . in a modular form that is configured to support tomorrow’s Army, with a greater number of engineers than we had before modularization.

People

Our Regiment is people—our Soldiers, Department of the Army civilians, leaders, allies, and families must always be the centerpiece of our actions if we want continued success. They ultimately put the skills and tools

together to produce the desired effects for our Army. We must provide defined career paths, opportunities for professional growth, and missions filled with challenges and rewards in order to acquire and retain quality Soldiers, leaders, and civilian employees. Also, we must solidify programs to address needs and concerns of our families. To accomplish this, we must constantly and effectively communicate both internally and externally in this rapidly changing world.

One Regiment

With such a diverse organization filled with talented people, our goals of providing the absolute best skills and tools for our Soldiers, leaders, and units can certainly be realized. A thought process where we gauge our progress and win as a team is needed: Skills and Tools! It is clear that the Engineer Regiment has an incredibly bright future. Let’s work together to pave the way for those to follow! Essayons!



Major General Castro is the Commandant, US Army Engineer School, Fort Leonard Wood, Missouri.

Lieutenant Colonel Grosskruger is the Chief of Staff, US Army Engineer School, Fort Leonard Wood, Missouri.